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Applicant : Joseph Dale Helmick  
Appl. No. : 09/878,811  
Publication No.: 20020107822  
Filed : 06/10/2001  
Title : Uncertain and complex system teaches neural networks  
Once amended  
Title : Statistical mechanics system teaches neural networks  
Grp./A.U. : 2122  
Examiner : Michael Holmes

Honorable Commissioner for Patents  
Washington DC

**AMENDMENTS**

Honorable Commissioner:

With certificate of mailing and in good faith before the first office action, please amend the above identified once amended +application as follows:

**In the Claims**

Please add Claim 15 as follows:

(New) -15. The claim of 1 for a timing sensor measured and activated by numeric control from the data output of *match-with-rotate* algorithm, *yod* representing *cuspid root method* algorithm, and *zero vector* algorithm.

Please add Claim 16 as follows:

(New) -16. The claim of 1 for a stepper motor and generator winding measured according to the special angles detecting mechanism (Fig. 4) for *match-with-rotate* algorithm, *yod* representing *cuspid root method* algorithm, and *zero vector* algorithm and activated by numeric control.

Please add Claim 17 as follows:

(New) -17. The claim of 1 for a spark transmitter.

Please add Claim 18 as follows:

(New) --18. The claim of 1 for the nonlinear case,  $L(u) = \lambda(u)$ ,  $A(x) = \lambda(x) \times$  belongs to Complex numbers (Fig 3). The system  $L(u) \Rightarrow A(x)$ .

FROM : The Villas at St. Therese

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To: Michael Holmes Fax: (703) 746 7239  
From: Joseph D. Helmick  
Subject: Second amendment application before first office action  
Date: November 10, 2003

Please accept this additional and new amendment included with this fax.

*Joseph D. Helmick*